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VOL.4 No. 44 NOVEMBER 5, 1954

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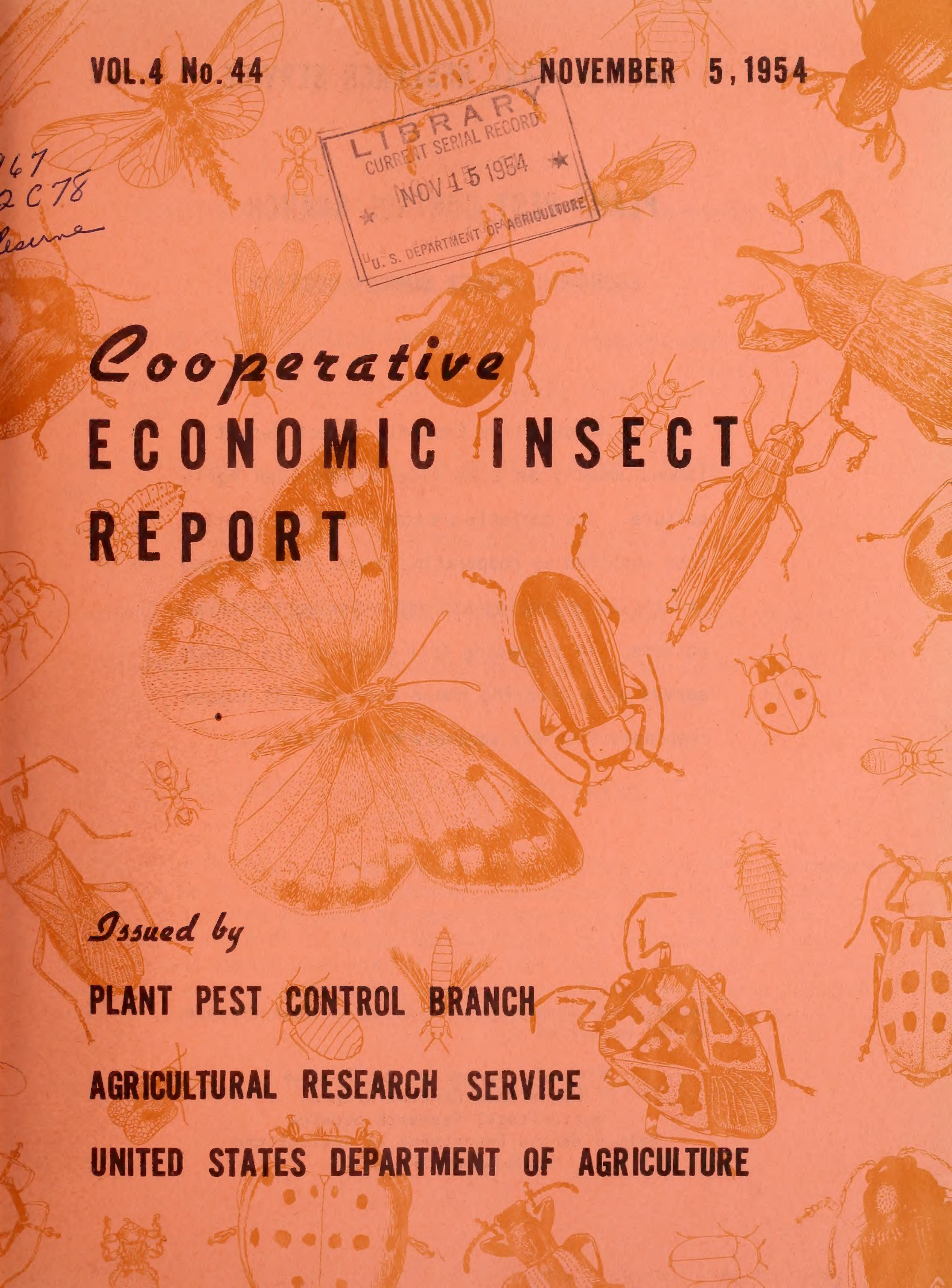

Cooperative ECONOMIC INSECT REPORT

Issued by

PLANT PEST CONTROL BRANCH

AGRICULTURAL RESEARCH SERVICE

UNITED STATES DEPARTMENT OF AGRICULTURE

AGRICULTURAL RESEARCH SERVICE

PLANT PEST CONTROL BRANCH

ECONOMIC INSECT SURVEY SECTION

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Branch serves as a clearing house and does not assume responsibility for accuracy of the material.

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Economic Insect Survey Section
Plant Pest Control Branch
Agricultural Research Service
United States Department of Agriculture
Washington 25, D. C.

Volume 4 November 5, 1954 No. 44

COOPERATIVE ECONOMIC INSECT REPORT

Highlights of Insect Conditions

Summary of FRUIT PIERCING MOTH activity, Mexico, 1953-54. (page 968).

SWEETPOTATO WEEVIL infestation unusually heavy in Louisiana. (page 968).

Relative abundance of Heliothis spp. on cotton in 1954 in Arkansas. (page 971).

BROWN COTTON LEAFWORM active in Natchitoches Parish, Louisiana. (page 972).

Summary of INSECT CONDITIONS - 1954 - New Jersey. (page 976).

NOTES received too late for inclusion in the body of the report (page 975).

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WEATHER BUREAU'S 30-DAY OUTLOOK
*November 1954

The Weather Bureau's 30-day outlook for November calls for temperatures to average below normal in the eastern half of the United States except near normal in New England and much below normal in the Southeast. In the western half of the nation temperatures are expected to average above normal except near normal in the Far West. Precipitation amounts are predicted to be greater than normal in the Northeast and near normal in the Southwest. In the remainder of the Country subnormal amounts are indicated.

*This report released by the Weather Bureau November 2, 1954.

Weather forecast given here is based on the official 30-day "Resume and Outlook," published twice a month by the Weather Bureau. You can subscribe through Superintendent of Documents, Washington, D. C. Price: $4.80 a year, $2.40 for six months.

WEATHER FOR THE WEEK ENDING NOVEMBER 1, 1954

Last week's weather was wet and cloudy in the northeastern quarter of the Country, persistently fair west of the Continental Divide, and abnormally cool everywhere except at a few stations in the Northeast. Freezing occurred in all interior regions except in the extreme South, and widespread snowfall in northern areas from the Rocky Mountains eastward was the first of the season in many localities. Temperatures for the week averaged 12° below normal at Rapid City, S. Dak., and 6° or more from Nevada and southern Idaho eastward to the Ohio Valley. In most of the area west of the Mississippi River last week was much colder than the previous week -- 11° colder at Salt Lake City, Utah, 16° at Denver, Colo., 8° at Kansas City, Mo., and 9° at St. Louis, Mo. On November 1, minimum temperatures were near zero at a few stations in the northern Great Plains.

Beneficial precipitation totaling from one-half to over an inch fell in the central and lower Mississippi Valley, South Dakota, and some adjacent areas, the middle Ohio Valley, much of the Northeast, and in a narrow belt along the Gulf Coast from Texas to extreme northwest Florida. Only light amounts fell in the remaining areas east of the Rocky Mountains, and virtually none west of the Continental Divide except in eastern Idaho and extreme western Colorado where totals were about normal. Droughty conditions continued in Georgia and Alabama. In the latter State water shortages remained critical in many areas. Light to moderate showers furnished only slight relief from the long dry spell in the Carolinas and northwestern Florida. (Summary Supplied by U. S. Weather Bureau).

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Reports in this issue are for the week ending October 29, 1954, unless otherwise designated.

CEREAL AND FORAGE INSECTS

FALL ARMYWORM (Laphygma frugiperda) - TEXAS - Heavy scattered infestation on vetch, oats, rye, and Bermuda grass in Madison County. Infestation not as heavy as last week. (Garrett). KANSAS - Survey of 39 corn fields of northern and eastern areas shows average of 7.7 percent of mature ears dropped from stalks, apparently from heavy feeding in shanks. (Matthew). CALIFORNIA - Extensive damage to corn in part of Riverside County during September. (Cal. Coop. Ins. Rept.).

CORN EARWORM (Heliothis armigera) - CALIFORNIA - Light to moderate in corn in Glenn County. Heavy damage during summer in Modoc County corn. Up to 50 percent infestation in San Diego sweet corn. Damage also to corn in Orange County. (Cal. Ins. Pest Rept., Sept.).

CORN BORERS (Diatraea spp.) - KANSAS - Southwestern corn borers collected from girdled corn stalks from the following 11 counties of east central and northeast Kansas: Anderson, Douglas, Franklin, Jefferson, Johnson, Leavenworth, Linn, Miami, Osage, Shawnee and Wyandotte. Light infestations (county averages all less than 1 percent) scattered throughout area. This survey with exception of Atchison and Doniphan Counties, extends distribution of southwestern corn borers to include all eastern counties along the Kansas-Missouri boundary. (Matthew).

SORGHUM WEBWORM (Celama sorghiella) - TEXAS - Medium local infestation on milo grain in Dimmit County, 3-10 per infested plant. Damage not severe yet, but potential damage serious. (Richardson).

ALFALFA CATERPILLAR (Colias philodice eurytheme) - ARIZONA - The parasite reported in CEIR, Vol. 4, No. 39, p. 882 as a scelionid has been identified as Trichogramma minutum by B. D. Burks. (Ariz. Coop. Rept.). CALIFORNIA - Heavy infestations in alfalfa in Yolo County, medium in Imperial County. (Cal. Coop. Ins. Rept. Sept.).

YELLOW CLOVER APHID (Myzocallis trifolii) - CALIFORNIA - Severe damage to alfalfa in parts of Riverside County, but less than economic numbers in warmer Coachella Valley. (Cal. Coop. Ins. Rept. Sept.).

ALFALFA WEEVIL (Hypera postica) - MARYLAND - From 1 to 8 adults per 100 sweeps in 5 alfalfa fields in Carroll County. One larva found. (U. Md., Ent. Dept.). CALIFORNIA - Lighter infestations than in past 4-5 years in Modoc County. (Cal. Coop. Ins. Rept., Sept.).

LUPINE MAGGOT (Hylemya lupini) - FLORIDA - No evidence of infestation in lupine fields surveyed in Alachua County. (Van Pelt).

TARNISHED PLANT BUG (Lygus lineolaris) - MARYLAND - From 0.9 to 4.5 per sweep in 15 alfalfa fields in Carroll, Queen Annes, Howard and Montgomery Counties. (U. Md., Ent. Dept.).

MEADOW SPITTLEBUG (Philaenus leucophthalmus) - MARYLAND - From 0.4 to 2.1 per sweep in 15 alfalfa fields in Carroll, Queen Annes, Howard and Montgomery Counties. Some still mating. (U. Md., Ent. Dept).

PEA APHID (Macrosiphum pisi) - MARYLAND - From 50-200 per sweep in 5 alfalfa fields in Carroll County, 10-75 in 10 fields in Queen Annes, Howard, and Montgomery Counties. (U. Md., Ent. Dept.).

SUNFLOWER MOTH (Homoeosoma electellum) - SOUTH CAROLINA - Destroyed heads of sunflowers on experimental planting at Blackville. Fall armyworm also involved. Determined by H. W. Capps. (McAlister, Sept. 8).

MEXICAN BEAN BEETLE (Epilachna varivestis) - N. C. - Much damage to soybeans in Pasquotank County during August and September, with an average loss of about one-third in spite of control operations. (Lowery). Present activity in garden varieties of beans in Gates and Hertford Counties, but no evidence of injury to soybeans. (Mitchell).

RHODES-GRASS SCALE (Antonina graminis) - TEXAS - Heavy local infestation on St. Augustine and Johnson grasses in Tarrant County. Considerable damage. As far as can be determined this is first time this pest has been reported this far northwest. (Taylor).

TEXAS LEAF-CUTTING ANT (Atta texana) - TEXAS - Medium heavy widespread infestation on grasses, legumes, and other crops in Sabine County. One colony is about 1/8 acre in area, several from 15-25 feet in diameter. Heavy damage in several communities. (Thompson).

CHINCH BUGS - FLORIDA - All stages causing heavy damage to torpedo grass in several acres of pasture in Osceola County. (Smith).

A SUGARCANE SCALE (Targionia sacchari) - FLORIDA - Infesting centipede grass at Stuart, Martin County. Grass dying in spots. (Hayslip).

GRASSWORMS (Mocis spp.) - SOUTH CAROLINA - Mocis latipes (det. H. W. Capps) collected on grasses at Allendale Sept. 3. This insect is very important on grasses during the fall. (Nettles). FLORIDA - Mocis sp. causing slight damage to grass and cover crops at Quincy, apparently heavier than usual. (May).

WHITE GRUBS - KANSAS - A heavy infestation reported to have destroyed 160 acres of wheat in Rush County. Counts average 5 grubs per foot of drill row in infested areas. (Harvey).

FRUIT INSECTS

EUROPEAN RED MITE (Metatetranychus ulmi) - CALIFORNIA - Moderate infestations in 42,000 acres of prunes and 6,000 acres of pears in Santa Clara County. (Cal. Coop. Ins. Rept., Sept.).

CITRUS RUST MITE (Phyllocoptruta oleivora) - TEXAS - Medium heavy widespread infestation on citrus in Rio Grande Valley. Has gradually increased during past year and continues to increase. Had big build-up in September. (Griffith).

CALIFORNIA RED SCALE (Aonidiella aurantii) - CALIFORNIA - Heavy hatch occurred in San Diego County citrus during September. Infestation in San Bernardino County mostly light. (Cal. Coop. Ins. Rept.).

WALNUT APHID (*Chromaphis juglandicola*) - CALIFORNIA - Heavy damage to Persian walnuts in Lake County, as high as 100 per leaf some instances. Light to moderate infestation in walnut groves and heavy in pecan groves in Glenn County. (Cal. Coop. Ins. Rept., Sept.).

Summary of Fruit Piercing Moth Activity, Mexico, 1953-54: A fruit piercing moth (*Gonodonta bidens* Hbn), which was reported damaging citrus fruit in the States of San Luis Potosi, Tamaulipas and Nuevo Leon, Mexico, during September, October and November 1953 has again appeared in northeastern Mexico. Losses ranging from 20 to 50 percent in early oranges were reported in 1953. This year, the number of adults observed and the damage caused by the moth remains insignificant up to October 25. The first moth was captured during the first week in September but there has been no build-up in population, although a few moths are observed from time to time by citrus blackfly inspectors. (Ing. P. E. Calles, Defensa Agricola (Dept. of Agric. Mexico), and G. Valdez, P. P. C. Branch).

GRAPE MEALYBUG (*Pseudococcus maritimus*) - CALIFORNIA - Severe infestations in vineyards in Tulare County during September. (Cal. Coop. Ins. Rept.).

GRAPE LEAF FOLDER (*Desmia funeralis*) - CALIFORNIA - Severe damage in Merced County early in September. Light damage to grapes also in Madera County. (Cal. Coop. Ins. Rept.).

GALL MIDGES - SOUTH CAROLINA - Previously unreported damage to leaves of pecan from Richland County, September 3. Midges believed by R. H. Foote to be *Caryomyia tubicola* and *C. caryaecola*. (McAlister, Johnston).

TRUCK CROP INSECTS

SWEETPOTATO WEEVIL (*Cylas formicarius elegantulus*) - LOUISIANA - Heaviest infestation in 10 years reported from the commercial growing area. Fifty percent infestation not uncommon. (Cockerham, Oct. 25).

SWEETPOTATO LEAF ROLLER (Pilocrocis tripunctata) - LOUISIANA - Damage unusually heavy this year. Defoliation responsible for considerable reduction of yield in many fields in commercial potato growing area. (Cockerham, Oct. 25).

SOUTHERN GARDEN LEAFHOPPER (Empoasca solana) - LOUISIANA - Early light infestations increased to damaging populations in mid and late season. Infestation extremely heavy in some fields at present. (Newsom, Cockerham, Oct. 25).

HORNWORMS (Protoparce spp.) - TEXAS - Medium heavy scattered infestation on tomatoes in Rio Grande Valley. (Griffith).

LEAF MINERS (Liriomyza sp.) - TEXAS - Light widespread infestation on bell peppers and tomatoes in Rio Grande Valley. Infestations just starting. (Griffith). FLORIDA - Light to moderate on tomato plants at Fort Pierce, St. Lucie County. (Hayslip).

SOUTHERN ARMYWORM (Prodenia eridania) - FLORIDA - Light to moderate infestations on tomato plants at Fort Pierce, St. Lucie County. (Hayslip).

PEPPER WEEVIL (Anthonomus eugenii) - TEXAS - Light, medium widespread infestation on bell peppers in Rio Grande Valley. (Griffith). CALIFORNIA - Moderate damage to peppers in San Diego County during September. (Cal. Coop. Ins. Rept.).

TOMATO FRUITWORM (Heliothis armigera) - TEXAS - Light widespread on tomatoes in Rio Grande Valley. Beginning preventative control measures. Light medium widespread on bell peppers. (Griffith).

A LEAFHOPPER (Empoasca sp.) - FLORIDA - Averaging 3 nymphs per leaf in 5-acre sweetpotato field in Alachua County. (Van Pelt).

COWPEA CURCULIO (Chalcodermus aeneus) - TEXAS - Heavy widespread infestation on peas in Rio Grande Valley. Heaviest infestation in 5 years. (Griffith).

MEALYBUGS - OKLAHOMA - Stored potatoes in some areas heavily infested. (Stiles).

GRANULATE CUTWORM (Feltia subterranea) - MISSISSIPPI - Rather heavy infestation observed recently in Jackson County, where turnips and onions being destroyed. (Bond).

CABBAGE LOOPER (Trichoplusia ni) - LOUISIANA - Infestation general on fall cabbage in St. James and Plaquemines Parishes. (Cockerham, Oct. 25). TEXAS - Isolated widespread infestation on cabbage and lettuce in Rio Grande Valley. (Griffith). NORTH CAROLINA - Some fields of cabbage in Pasquotank County heavily infested, with 90-100 percent of plants showing damage, and an average of one larva to two plants. In most fields, however, controls seem to have been adequate. (Mitchell).

POTATO TUBER WORM (Gnorimoschema operculella) - CALIFORNIA - Light to heavy infestations in potato fields in Santa Barbara. County. Light to medium damage in Riverside County. (Cal. Coop. Ins. Rept., Sept.)

FIELD CRICKET (Ancheta assimilis) - CALIFORNIA - Light damage to lettuce in Riverside County. Medium infestations on several truck crops in Imperial County. (Cal. Coop. Ins. Rept., Sept.).

COTTON INSECTS

BOLL WEEVIL (Anthonomus grandis) - LOUISIANA - Populations generally high on second-growth cotton. Late rains have stimulated new growth and square formation in many areas. These conditions should favor the entry into hibernation of large numbers of well-fed weevils. (Newsom, Roussel).

BOLLWORMS - CALIFORNIA - Serious damage to cotton in Riverside County. Heaviest infestations in Merced County cotton near corn fields. (Cal. Coop. Ins. Rept., Sept.).

Light Trap Collections of Heliothis spp. Arkansas, 1954: Beginning July 1 and ending September 11, the light trap at Varner (Lincoln County) was operated 66 nights. A total of 3,426 Heliothis adults were taken. Of this number, only 2 were H. virescens. The first was taken in late August, the other in September. The average catch of H. armigera per night fluctuated but, in general, the trend was upward. The average number collected per night (of operation) in July was 30.5; in August 52.7; and for the first two weeks in September, 92.7. This light trap was moved in September to Stuttgart and continued in operation beginning September 28. During the 30 nights that collections have been made at this location, 453 H. armigera have been collected for average of 15 per night. The range was 0 to 52. No H. virescens has been recorded from this trap. Collections of adults in northwest Arkansas have been made in the field and from lights and a light trap. The total number collected in this area is 2,210., of which only 1 was H. virescens.

On cotton, larval collections of Heliothis spp. began in early July at Varner on experimental plots. Sixty-seven larvae were taken, of which 1 was H. virescens and a second undetermined. Two adult H. virescens were observed in the field. Concurrent with the cotton insect scouting program, larval collections were made by many of the scouts and the Survey Entomologist. A total of 1,424 larvae were collected, of which 99 were H. virescens. Based on this figure, 7.14 percent of the bollworms in Arkansas were H. virescens. Combining the Varner figures with these gives an average of 6.7 percent.

Larval collections of Heliothis spp. were made from various hosts in northwest Arkansas. A total of 1,074 larvae were collected, 100 of which were H. virescens. All of these were taken from tobacco in Carrol County and were not considered in the figures above.

From the collections of larval and adult Heliothis spp. during 1954 in Arkansas, H. armigera (bollworm, corn earworm) is by far the dominant species. It also has a greater range of host plants than H. virescens (tobacco budworm) which accounted for approximately 7 percent of the total bollworm population. (Warren, Barnes).

COTTON LEAFWORM (*Alabama argillacea*) LOUISIANA - Defoliation and ragging general, especially in fields having second growth. (Burns).

BROWN COTTON LEAFWORM (*Acontia dacia*) - LOUISIANA - Forty-one moths taken in light trap at Natchitoches Parish October 12. Larvae abundant in several fields in light area October 20. Light infestation of larvae also in one field in southern Red River Parish about 15 miles north of Natchitoches area but no larvae found in upper Red River delta area. (Burns, Newsom, Oct. 25).

COTTON LEAF PERFORATOR (*Bucculatrix thurberiella*) - CALIFORNIA - Extensive damage in some cotton fields in Riverside County. (Cal. Coop. Ins. Rept., Sept.).

FOREST, ORNAMENTAL AND SHADE TREE INSECTS

CALIFORNIA OAKWORM (*Phryganidia californica*) - CALIFORNIA - Heavy infestation in oak trees in San Mateo County during Sept. (Cal. Coop. Ins. Rept.).

PALES WEEVIL (*Hylobius pales*) - NORTH CAROLINA - Extensive damage to newly-set seedling pines in areas that had been clean cut and burned in Carteret and Craven Counties. (Ellison).

A NITIDULID (*Conotelus mexicanus*) - ARIZONA - Severely attacking roses east of Scottsdale. (Ariz. Coop. Rept.).

ENGRAVER BEETLES - FLORIDA - Infesting 50 acres of burned-over slash pine in plantation Washington County. (Edenfield). Infesting 90 percent of 7-acre area of slash pines in Lafayette County. (Van Pelt).

A SCALE (*Eriococcus* n. sp.) - CALIFORNIA - Found on *Pittosporum* spp. in Golden Gate Park, San Francisco. As far as known this is a new insect in California; however, preliminary reports indicate infestation has existed for a long period of time. (Allen, McKenzie).

INSECTS AFFECTING MAN & ANIMALS

HORN FLY (Siphona irritans) - OKLAHOMA - Numerous in southeastern Oklahoma, greatly reduced in other areas. (Bower).

PUSS CATERPILLAR (Megalopyge opercularis) - TEXAS - Medium heavy local infestation in Jefferson County. Causing painful stings to humans, especially children playing around infested sycamore trees. (Combs).

SIMULIDS - UTAH - Flies annoying to deer hunters at some locations in Wasatch Mountains above Logan at and near summit October 23. (Knowlton).

STABLE FLIES AND HOUSE FLIES - OKLAHOMA - Cool weather has reduced populations to very small numbers. (Howell).

MISCELLANEOUS INSECTS

BOXELDER BUG (Leptocoris trivittatus) - ILLINOIS - Noticeably abundant around buildings and homes in eastern district. (Moore, Oct. 22). Still receiving complaints Oct. 29. (Petty). MARYLAND - Unusual number of reports on annoyance around homes continue to be received from several areas. (U. Md., Ent. Dept.). UTAH - Annoying in homes and offices. (Knowlton). NORTH CAROLINA - Numerous complaints from householders in Raleigh. (Jones).

A PHALAENID (Otosema odorata) - FLORIDA - A black witch moth taken in Gainesville. This insect appears to be rather rare in this area. (Tissot).

STORED-PRODUCT INSECTS

STORED-GRAIN PESTS - SOUTH DAKOTA - GRANARY WEEVIL infestation in old stored wheat in Ziebach County. (Lofgren, Spawn). MARYLAND - Examination of stored oats, corn, barley and wheat in farm type bins in Carroll, Queen Annes and Howard Counties revealed the following: ANGOUMOIS GRAIN MOTH infesting 8 of 15 bins, 4 heavily infested. GRANARY WEEVIL infesting 4 of 15, 2 heavily. CADELLE infesting 10 of 15, 2 heavily. SAW-TOOTHED GRAIN BEETLE infesting 3 of 15, 1 moderately infested. CONFUSED FLOUR BEETLE infesting 5 of 15, 1 heavily. FLAT GRAIN BEETLE infesting 2 of 15, both infestations light. (U. Md., Ent. Dept.).

BENEFICIAL INSECTS

LADY BEETLES - CALIFORNIA - Abundant in alfalfa fields of Riverside County. Extremely heavy in yellow clover aphid infested areas. (Cal. Coop. Ins. Rept., Sept.).

PREDATORY BUGS - CALIFORNIA - Orius tristicolor abundant in cotton in Palo Verde Valley, Riverside County. Also observed in alfalfa in Coachella and Moreno Valleys. Nabis ferus abundant in some alfalfa fields in Riverside County, but scarce in irrigated desert valleys. (Cal. Coop. Ins. Rept., Sept.).

RECENT IMPORTANT INTERCEPTIONS AT PORTS OF ENTRY

A living curculionid larva, identified as Premnotrypes sp. was intercepted recently in a potato tuber in ships' stores from Peru at Philadelphia, Pa. (Freedland). Six species of this genus of weevils have been recorded infesting potatoes in parts of South America. Three are considered of some economic importance: P. latithorax (Pierce) said to occur in Bolivia and Peru; P. solani Pierce reported from Bolivia, Chile, and Peru; and P. vorax (Hust) listed from Colombia and Ecuador. Reports of injury to potatoes by these weevils indicate that the habits of the various species are similar. The adults are said to feed on the leaves and deposit eggs on the tubers on in the soil. The newly hatched larvae bore into the tubers. Their entrance hole soon heals over leaving no outward sign of their presence in the infested potato. The larvae tunnel through the tuber in all directions, complete their development and hollow out an oval cell just beneath the skin of the potato, pupate and emerge as adults in the tubers. Adult weevils are about 7-9 mm long and 2-4 mm wide, dark brown or black in color. Life history studies indicate that there is one generation a year. None of these weevils of the genus Premnotrypes are known to occur in the United States. (Compiled by Peltier, PQ Branch).

ADDITIONAL NOTES

VIRGINIA - (week ending Oct. 22) - ALFALFA WEEVIL larvae doing light damage in the Herndon and Vienna areas of Fairfax County. (Blair). PEA APHID infestations severe on alfalfa over most of Fairfax County. (Blair). Light in Montgomery County. (Turner). CORN EARWORMS and FALL ARMYWORMS did severe damage to late corn in the Chantilly area of Fairfax County. (Blair). DOGWOOD BORER (Thamnosphecia scitula) reported damaging dogwood trees in Amelia County. (Rowell & Wood). CODLING MOTH damage has been light to moderate on apples in the entire upper Shenandoah Valley area, but heavy in a few orchards, up to 10-15 percent. RED-BANDED LEAF ROLLER damage to apples has been light for season over entire upper Shenandoah Valley area, and was still damaging some orchards at end of September. (Hill). CABBAGE WEBWORMS heavily damaging turnips in Halifax County. A number of complaints have been received from farmers concerning this type of injury this fall. (Hall).

(week ending Oct. 30) - JUNE BEETLE larvae - a medium infestation reported damaging pastures at Chula, Amelia County. (Wood). THREE CORNERED ALFALFA HOPPERS light on alfalfa in Richmond County, 5 per 100 sweeps of 15 inch net. Infestations of all other alfalfa insects very light in the county, following a rain. (Turner). BOXELDER BUGS complaints continue from Montgomery County. Specimens from Mecklenburg County. (Rowell). Very large populations around many homes in Henrico County. (Davis). Heavy infestation of BAGWORM reported from Spotsylvania County. PINE WEBWORMS (Tetralopha sp.) and a TIP MOTH (Rhyacionia sp.) reported damaging pines in Accomac County in early Sept. (Morris). MEXICAN BEAN BEETLES seem to be fewer on late snap beans in Norfolk area since the recent hurricane. CORN EARWORM injury to fall snap beans continues severe, and hard to control. CABBAGE LOOPERS are very abundant on crucifers in this area, and the growers who have brought them under control had to use some of the newer insecticides. Moderate numbers of IMPORTED CABBAGEWORMS on untreated or inadequately protected crucifers. (Brubaker, Greenwood, Hofmaster, Oct. 23).

SUMMARY OF INSECT CONDITIONS - 1954

NEW JERSEY

Reported by L. G. Merrill

Vegetable Pests
The ASPARAGUS BEETLES (Crioceris asparagi and C. duodecimpunctata) were numerous in southern New Jersey plantings. Damage was light as growers are accustomed to using chemical control measures. ASPARAGUS MINER (Melanagromyza simplex) caused spotty infestations throughout State. MEXICAN BEAN BEETLE (Epilachna varivestis) populations were lower than normal over the State. TWO-SPOTTED SPIDER MITE (Tetranychus bimaculatus) caused severe damage on snap and lima beans. Some growers were forced to make as many as three applications of acaricidal materials to control these pests satisfactorily. SEED-CORN MAGGOT (Hylemya cilicrura) caused some injury on plantings of snap beans. Some slight damage was noticed from DIAMONDBACK MOTH (Plutella maculipennis). IMPORTED CABBAGEWORM (Pieris rapae) caused some damage throughout the season, but the major crucifer "worm" pest in New Jersey was the CABBAGE LOOPER (Trichoplusia ni). Beginning the second week of August cabbage looper damage was distinctly noticeable throughout the State on cabbage and broccoli. Heavy damage was noted where control measures were lax. CABBAGE MAGGOT (Hylemya brassicae) caused considerable early damage in the market gardening areas in the northern part of New Jersey. From 20 to 40 eggs were commonly found deposited around crucifer transplants. CABBAGE APHID (Brevicoryne brassicae) was very noticeable early in the season and late cabbage crop was heavily attacked in the seed bed and when it was first set out. Severe damage was detected from this insect in the cooperative survey carried by the New Jersey Department of Agriculture and the College of Agriculture, Rutgers University.

CARROT WEEVIL (Listronotus oregonensis) was active in the organic soil areas of northern New Jersey but injury was not severe. SIX-SPOTTED LEAFHOPPER (Macrosteles fascifrons) was generally present throughout the State, but adequately controlled by applications of the newer insecticides. Some aster yellows was detected on late lettuce, and processing carrots. CORN EARWORM (Heliothis armigera) caused considerable damage throughout the season to sweet corn. Damage to early sweet corn was severe and weekly inspections revealed some infestation of this pest throughout the summer, a second peak of heavy damage appearing in August and September. Corn earworm also appeared late in the year as a pest of beans, lettuce and other leafy vegetables. The first generation of EUROPEAN CORN BORER (Pyrausta nubilalis) was apparent throughout New Jersey but damage was light except in areas in Camden and Gloucester Counties. The second generation failed to materialize as a pest of sweet corn. FALL ARMYWORM (Laphygma frugiperda) appeared in early August and caused sporadic damage throughout State. Both sweet corn and the field corn seed growers suffered damage. SEED-CORN MAGGOT caused considerable damage to sweet corn and field corn plantings. Seed treatments were not entirely effective, probably due to a long period of weather unfavorable to germination of corn. Activity of the CUCUMBER BEETLES (Acalymma vittata and Diabrotica undecimpunctata howardi) was not markedly heavy. MELON APHID (Aphis gossypii) was found in considerable numbers chiefly in small garden plantings. SQUASH VINE BORER (Melittia cucurbitae) was also found primarily in small garden plantings as was SQUASH BUG (Anasa tristis). In northern New Jersey SEED-CORN MAGGOT damaged squash and cucumber plantings.

ONION MAGGOT (Hylemya antiqua) caused some damage to seed onions in the organic soils of northern New Jersey. ONION THRIPS (Thrips tabaci) were also present and damaging due to the extremely dry hot weather conditions which prevailed from late May until first week of August. PEA APHID (Macrosiphum pisi) caused considerable damage on a large acreage of canning peas in southern New Jersey. Practically all areas were treated twice with insecticides to control this serious pest. PEPPER MAGGOT (Zonosemata electa) was generally brought under good control but local damage did occur. EGGPLANT LACE BUG (Gargaphia solani) caused local damage in the southern area. TWO-SPOTTED SPIDER MITE also caused heavy damage on eggplant throughout southern New Jersey and was generally undetected by growers which resulted in unnecessary loss. Populations were high on many vegetable plants and much damage resulted.

POTATO APHID (Macrosiphum solanifolii) was numerous during August on tomatoes and potatoes throughout central area. COLORADO POTATO BEETLE (Leptinotarsa decemlineata) did not appear as a major pest of solanaceous plants. POTATO FLEA BEETLE (Epitrix cucumeris) caused considerable early injury to potato and tomatoes. A European FLEA BEETLE (Phyllotreta cruciferae) caused heavy damage to early and late crucifer plantings throughout State. An apparent second generation caused very heavy damage to late crop of late crop of all types of crucifers throughout central and northern areas. The unusual damage caused HORNWORMS (Protoparce sp.) was found throughout the State and TOMATO FRUITWORM caused some damage to late-season tomatoes. GREEN PEACH APHID (Myzus persicae) was present on late spinach in considerable numbers. The most serious pest of late spinach was the CABBAGE LOOPER which appeared in September and October and caused considerable contamination of spinach grown for processing. TOMATO RUSSET MITE (Vasates lycopersici) was found in several fields throughout the southern half of the State, but was not the pest it had been in the 1952 and 1953 seasons.

CORN FLEA BEETLE (Chaetocnema pulicaria) populations were heavy throughout the State and the incidence of Stewart's disease or bacterial wilt was correspondingly heavy where applications of chemicals to control the flea beetle were not applied. WIREWORMS, in large part the eastern field wireworm (Limonius agonus) caused damage to a wide variety of crops.

Forage and Hay Pests

ALFALFA WEEVIL (Hypera postica) has established itself as a major pest of alfalfa in southern counties. The range of this insect has been extended until only the extreme northwestern counties are not known to be infested. Commercial damage to many alfalfa plantings occurred during 1954. If the present trend continues, alfalfa weevil will become a major pest of alfalfa throughout New Jersey. PEA APHID, after lapse of three or four years, appeared in great numbers and caused severe damage where proper control measures were not applied. Damage extended farther north than usual and was heavy in certain areas of the extreme northern area, whereas normally severe damage is considered to be more confined to the southern counties. MEADOW SPITTLEBUG (Philaenus leucophthalmus) was again found to be numerous primarily in western central New Jersey and some young plantings of alfalfa and red clover were damaged so severely that coupled with drought injury the stands were lost. Clover leaf weevil (*Hypera punctata*) was found in considerable numbers in the west central area and caused some damage locally. POTATO LEAFHOPPER (*Empoasca fabae*) caused some damage on second and third cutting of alfalfa. The extreme drought conditions apparently accentuated this damage in many localities. Populations fell off considerably during August, but some damage was reported as late as September 17.

Fruit Insects

A blueberry blossom WEEVIL (*Anthonomus* sp.) caused severe damage in some unsprayed blueberry plantings. On blueberries, PLUM CURCULIO (*Conotrachelus nenuphar*) injury was delayed by cool weather. In general, damage from this pest was not severe. CHERRY FRUITWORM (*Grapholitha packardi*) moths appeared in great number in late May and June and where control measures were not practiced severe damage to blueberry plantings occurred. BLUEBERRY MAGGOT (*Rhagoletis pomonella*) caused some damage on blueberries and was numerous on wild berries in the vicinity of cultivated plantings. Some reports of damage by WHITE GRUBS to blueberry roots from Atlantic County. CRANBERRY FRUITWORM (*Mineola vaccinii*) and a FRUITWORM (*Sparganothis sulfurana*) caused local damage to cranberry plantings. The widespread use of hydrocarbon and phosphate insecticides apparently depressed the appearance of virus vector leafhoppers in cranberry and blueberry plantings. Although first-brood CODLING MOTH (*Carpocapsa pomonella*) was not unusually severe in orchards, hot dry conditions during the summer favored second brood and considerable damage was noted throughout State. In general, 2-SPOTTE SPIDER MITE and EUROPEAN RED MITE (*Metatetranychus ulmi*) did not cause the usual amount of damage. There were, however, heavy local infestations of European red mite. ORIENTAL FRUIT MOTH (*Grapholitha molesta*) was not a particular problem and activity of RED-BANDED LEAF ROLLER (*Argyrotaenia velutinana*) and PLUM CURCULIO were light. A cooperative pest survey on peaches revealed that PEACH TREE BORER (*Sanninoidea exitiosa*) infestation was noticeable on about 50 percent of the peach trees examined throughout the State. Some orchards had nearly 100 percent infestation. A considerable amount of activity by LESSER PEACH TREE BORER (*Synanthedon pictipes*) was found, but this pest does not seem to be the problem it was in past years.

Ornamental and Shade Tree Pests

CANKERWORM (Paleacrita vernata, and particularly Alsophila pometaria) activity was very great and many shade and forest trees were partially defoliated. ELM LEAF BEETLE (Galerucella xanthomelaena) caused widespread damage, and in central New Jersey a considerable number of large elm trees were essentially defoliated by this pest. In general, nursery pest activity was at a low level except for TWO-SPOTTED SPIDER MITE and SOUTHERN RED MITE (Paratetranychus ilicis). Both of these pests caused locally heavy damage throughout State. EASTERN TENT CATERPILLAR (Malacosoma americanum) caused heavy damage to wild cherry and related trees throughout the State. BLACK VINE WEEVIL (Brachyrhinus sulcatus) did not cause as severe damage as previously. In greenhouses TWO-SPOTTED SPIDER MITE caused considerable damage in various plants. Activity of CYCLAMEN MITE (Tarsonemus pallidus) was normal. POTATO LEAFHOPPER (Empoasca fabae) caused some damage on maple and related ornamental and shade trees. (Information on ornamental pests was supplied by C. C. Hamilton).

Household Pests

Drosophila species caused considerable annoyance during October to householders. Apparently the populations was much higher than usual in late summer and fall whereas during the major part of the summer hot dry temperatures depressed populations. Considerable numbers of the HOUSE CRICKET (Acheta domestica)and other crickets were noted throughout the late summer.

Insects Pests of Man and Animals

Reports of infestation by CAT and DOG FLEAS (Ctenocephalides felis and C. canis) were numerous but appeared somewhat later than usual. During late April and early May the AMERICAN DOG TICK (Dermacentor variabilis)was very numerous throughout the state. Drought conditions interrupted the flow of many streams throughout the state. This produced pooling of polluted waters and heavy infestation by several species of MOSQUITOES including Culex pipiens. BLACK FLIES were very numerous in the hilly regions of northern New Jersey causing considerable discomfort to men and animals. Populations of HOUSE FLY

(*Musca domestica*) were not particularly heavy during the summer season due to the extreme drought conditions and in general drought conditions suppressed populations of *Chrysops* spp. Appearance of *Fannia* spp. as primary "barn fly" up through mid July is of considerable interest. BROWN DOG TICK (*Rhipicephalus sanguineus*) reported as a household pest from several sections. Whether these reports are coincidental or indicative of a resurgence of this pest in homes is not yet known.

Stored Grain Pests

Activities of the ANGOUMOIS GRAIN MOTH (*Sitotroga cerealella*) were not as heavy as in previous years. The usual number of complaints were received of activity of other major stored-grain pests.